REMARKS

Claims 1-20 are pending in the present application. Claims 10-20 have been previously withdrawn. No claim amendments have been made herein.

Claims 1-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,542,905 to Fogel ("Fogel") in view of U.S. Patent No. 6,526,358 to Matthews ("Matthews").

Request to Withdraw Finality of Office Action

The Examiner has issued a final Office Action for the pending application because "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action." However, the amendments in the Response to the Non-Final Office Action are not the cause for the Examiner's new ground of rejection. In the non-final Office Action, the Examiner rejected claims 1-9 under 35 U.S.C. § 112, second paragraph and under 35 U.S.C. § 103(a) as unpatentable over Fogel. In response to the § 112 rejection, claim 1 was amended accordingly. In response to the § 103 rejection, the undersigned representative argued that Fogel does not teach or suggest each and every element. The Examiner has now issued a final Office Action that rejects claims 1-9 under § 103 as being unpatentable over Fogel in view of Matthews. However, the undersigned representative's arguments, not the amendments (in response to the § 112 rejection), have necessitated the new ground of rejection (§ 103 in view of Fogel and Matthews). Accordingly, the undersigned representative requests that the finality of the Office Action be withdrawn.

Rejection of Claims 1-9 Under 35 U.S.C. § 103(a)

Claims 1-9 are rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,542,905 to Fogel ("Fogel") in view of U.S. Patent No. 6,526,358 to Matthews ("Matthews"). This rejection is respectfully traversed.

On page 3 of the Office Action, the Examiner recognizes that "Fogel does not explicitly teach risk assessment system; and evaluating the initial probability of the first hypothesis based on the at least one cause," as recited in claim 1. In order to cure the deficiencies of Fogel, the Examiner asserts that "Matthews teaches evaluating the initial probability of the first hypothesis based on the at least one cause (col. 6, lines 19-64)." However, Matthews fails to cure the

deficiencies of Fogel because Matthews fails to teach or suggest "evaluating the initial probability of the first hypothesis based on at least one cause."

Claim 1 evaluates the initial probability. "[T]he belief network 200 is first loaded with initial distributions or probabilities consistent with the state of knowledge prior to considering evidence." Page 18, lines 4-6. According to an embodiment and as similarly recited in claim 1, "the initial distributions of variables x and y are hypotheses." Page 18, lines 9-10. "The Bayesian belief network is now used to determine the probability of the null hypothesis for each variable." Page 19, lines 1-2. Once there is a change in the variable, Claim 1 recites determining a cause of the change in value and "evaluating the initial probability of the first hypothesis."

Matthews, as cited by the Examiner, fails to teach or suggest "evaluating the initial probability." Although Matthews recites "determining the highest probability hypothesis" and "calculat[ing] the probability that a particular fault has occurred," Matthews does not "evaluate" that probability calculation. *See* Col. 6, lines 19-64. And Matthews's determination of "the probability that a fault occurred" does not teach or suggest evaluating the initial hypothesis. In other words, using the example recited in Matthews, Matthews does not *evaluate* the "highest probability hypothesis."

Furthermore, Matthews's "hypothesis tester" does not "evaluate the initial probability of the first hypothesis," as recited in claim 1. "The hypothesis tester 58 utilizes a multiple hypothesis statistical test to detect and isolate leaks and blockages. Specifically, the hypothesis tester 58 uses a Bayesian likelihood ratio test to select the hypothesis most likely to be try given the current value of the innovation vector." Col. 6, lines 21-26. In other words, the hypothesis tester chooses from a list of pre-determined hypotheses, but does not determine a first hypothesis and then evaluate the initial probability of the first hypothesis.

Thus, neither Fogel nor Matthews, alone or in combination, teaches or suggests "evaluating the initial probability of the first hypothesis," as recited in claim 1. Because independent claim 1 is patentable over Fogel and Matthews for the reasons stated above, claims 2-9 are patentable over the cited art for the same reasons stated above. Therefore, the undersigned representative respectfully requests that the Examiner withdraw the rejection of claims 1-9 under 35 U.S.C. § 103(a).

CONCLUSION

The undersigned representative respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that the prosecution might be advanced by discussing the application with the undersigned representative, in person or over the telephone, we welcome the opportunity to do so. In addition, if any additional fees are required in connection with the filing of this response, the Commissioner is hereby authorized to charge the same to Deposit Account No. 50-4402.

Respectfully submitted,

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